



Discover

Summary

Nature is full of small wonders that can be discovered by using the senses. Seeing frogs in the wetlands, hearing woodpeckers drumming, smelling sassafras, or feeling fuzzy branches are some of the sensory experiences and small wonders of nature children may encounter. Through this sensory program, students will be immersed in an atmosphere that promotes protection of nature and the park.

Objectives

Students will be able to:

1. Explore one or more habitats of Indiana Dunes National Lakeshore.
2. Describe the importance of at least one other sense besides sight to animals and humans.
3. Name all five of their senses and have the opportunity to use at least three during the program.
4. Express their feelings about how special Indiana Dunes is.



What to Expect during Your Field Trip

1. Group meets the ranger at the Douglas Center or the Calumet Dune Interpretive Center.
2. The majority of the program is conducted outdoors. An indoor facility is available if weather is extreme.
3. The hour long hike includes a variety of exploratory activities using the senses.

Setting: This easy one-mile hike is a year-round program offered at two locations in the national lakeshore--the Paul H. Douglas Center in Miller or the Calumet Dune Interpretive Center near Beverly Shores. The program is designed to be all or mostly outside. Small portions of the program could be adjusted to be inside in case of inclement weather. Restrooms are available at both locations. Picnic facilities are available at the Douglas Center.

Grade: Pre-school through 3rd grade

Ratio of Students to Ranger: 30 to 1; total of 90 students if 3 rangers available. Please provide one adult chaperone for every 10 students for safety purposes.

Safety Issues: Both trails are easy and wide. The interpretive center trail is wheelchair accessible. Poison ivy is present in both areas.

For More Information: See the park's education website at www.nps.gov/indu/forteachers/. Contact the park's scheduling office at (219) 926-7561, ext. 243.

Background Information

So much of our life is focused on the sense of sight. Often we forget about paying attention to the other clues and stimuli that nature has to offer.

This program offers students a chance to slow down, use less-often utilized attributes, and use tools and activities to allow them to realize some of the other natural features nature has to offer.

These tools, such as sense of smell, touch, and hearing, are combined with using sight to observe; and therefore, discover as opposed to just seeing. It is hoped through appreciation of nature with fun and enlightening experiences, the inspiration of greater protection of our natural areas will ensue.

Prerequisite Classroom Activities

Activity 1: To introduce the five senses for the very young students, introduce “Sammy Sack” (plain brown lunch sack on teacher’s hand like a puppet) to students. When he fails to respond, notice he has no ears. Have a student draw ears on Sammy for him to hear. Talk to “Sammy”, asking if having ears to hear isn’t better. As he nods, ask him if the class looks like a good group today. Notice he has no eyes. Have another student draw eyes on Sammy to see the class. Continue the procedure for the remaining senses of smell (nose), taste (mouth), and touch (hands).

Activity 2: Stand quietly in the classroom and count the number of sounds using fingers heard in five seconds. Take the students outside and have them count using their fingers again the number of sounds they hear in five seconds out there. Compare what they hear inside and outside and how many more (or less) sounds they hear outside.

Activity 3: Set up mystery touch boxes in the classroom with mystery objects. Students must try to guess what the object is by touch only. Using descriptive words such as hard, soft, round, smooth, will help in classifying the objects.

Activity 4: Each student finds a rock, pine cone, or acorn nearby or picks one from a bag you bring. Take a look at your object for a few seconds and then put it in a pile with everyone else’s. Then tell them to find their object. It will probably be hard to find. Give them a second chance and let them find another one and have them really look at it. Then return it to the pile. Mix up the objects and challenge them to find it this time. It should be easier. Discuss using all the senses to observe nature and how they will understand and enjoy the trip much better if they really turn on all of their senses.

Vocabulary

SENSORY - relating to the senses (a specialized function or mechanism (as sight, hearing, smell, taste, or touch) by which an animal receives and responds to external or internal stimuli)

TRUST - a specialized function or mechanism (as sight, hearing, smell, taste, or touch) by which an animal receives and responds to external or internal stimuli; responsibility for safety and well-being

OBSERVE - to watch carefully; to make a scientific observation of ; to come to understand or know especially by thinking about facts that have been noted

EXPLORE - to search through/to go into or travel over for purposes of discovery or adventure; to examine carefully and in detail especially in order to make a diagnosis

FOCUS - to adjust one's eye or a camera to a certain range

ADAPTATION - a trait of an organism which helps it to survive; an adjustment to environmental conditions as an adjustment of a sense organ to the degree or quality of stimulation; change in an organism or its parts that fits it better for the conditions of its environment; a structure resulting from this change

HABITAT - the place or type of place where a plant or animal naturally or normally lives or grows

PATTERNS - an artistic form, figure, or design; a set of characteristics that are displayed repeatedly

Follow-up Activity

Class reflection paper or writing sample:

Ask each student to write a short essay, letter, or story about what they learned on their field trip to Indiana Dunes National Lakeshore. Rangers love receiving mail from their students. Send the ranger the packet of essays from your class (or a copy of them), and your ranger will send your class a certificate from the dunes. Send your essays to:

**Indiana Dunes National Lakeshore
1100 N. Mineral Springs Road
Porter, IN 46304
Attn: Your ranger's name or just Education Department**

If you are using this essay as a class assignment for a grade, we would like to suggest that each essay contain the following elements. **Use the rubric below to score them.**

- The name of the park and the location of their field trip—for example: Douglas Center, Indiana Dunes National Lakeshore
- Three facts they learned on the field trip about their senses and nature.
- A brief explanation of why Indiana Dunes is unique and therefore a national park.
- At least two things the student can do to help take care of his or her national park.
- Fill in the blank of this statement and provide an explanation: I would like to learn more about _____ at Indiana Dunes.

*** For advanced groups, add the following element:

Tell the park rangers if you would like to bring your families and friends to the dunes and if so what would you do here and where would you go.

Assessment

Rubric for class reflection writing assignment:

Elements	4 points	3 points	2 points	1 point
Writing and organization	The writing sample is very well written and organized by the elements provided. It has a strong introduction, middle and conclusion.	The writing sample is well written and organized by the elements provided. It includes an introduction, middle and conclusion.	The writing sample is choppy and is not well organized. It lacks an introduction or conclusion.	The writing sample is very short and unorganized.
Grammar & Spelling	Mistakes in spelling and grammar are minor or non-existent.	Mistakes in spelling and grammar are minimal—about 4-5.	Mistakes in spelling and grammar are numerous—5-10.	Mistakes in spelling and grammar are more than 10.
Facts and content	The writing sample demonstrates the student's learning on the dunes program and includes three or more facts provided by the park staff.	The writing sample demonstrates the student's learning and includes only two facts provided by the park staff.	The writing sample does not demonstrate much learning and only includes one fact provided by the park staff.	The writing sample does not demonstrate any learning and does not include any facts provided by the park staff.
National Park Service theme	The writing sample clearly demonstrates the student's understanding of the role of the NPS in preserving the dunes by explaining why the dunes are a unique treasure.	The writing sample mentions the NPS and its role in preserving the Indiana Dunes.	The writing sample mentions the NPS and Indiana Dunes.	The writing sample does not mention anything about the NPS or its role at Indiana Dunes.
Stewardship	The writing sample lists three things the student can do to care for the Indiana Dunes.	The writing sample lists two things the student can do to care for the Indiana Dunes.	The writing sample lists one thing the student can do to care for the Indiana Dunes.	The writing sample does not list anything about what the student can do to care for the Indiana Dunes.

Illinois Content Standards

The *Discover* program can assist teachers in meeting the following Illinois standards in science.

State Goal 11: Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

Know and apply the concepts, principles and processes of scientific inquiry.

11.A.1a Describe an observed event.

11.A.1e Arrange data into logical patterns and describe the patterns.

11.A.1f Compare observations of individual and group results.

State Goal 12: Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

Know and apply concepts that explain how living things function, adapt and change.

12.A.1a Identify and describe the component parts of living things (e.g. birds have feathers, people have bones, blood, hair, skin) and their major functions.

12.A.1b Categorize living organisms using a variety of observable features (e.g. size, color, shape, backbone).

Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1a Describe and compare characteristics of living things in relationship to their environments.

12.B.1b Describe how living things depend on one another for survival.

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

Know and apply the accepted practices of science.

13.A.1c Explain how knowledge can be gained by careful observation.